

TRAFFIC ACCIDENTS ON PUBLIC ROADS IN FINLAND IN 1977

THE NATIONAL BOARD OF PUBLIC ROADS AND WATERWAYS
OPERATIVE DIVISION, TRAFFIC OFFICE

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The National Board of Public Roads and Waterways
Operative Division, Traffic Office
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FOREWORD

The aim of this report issued by the National Board of Public Roads and Waterways (^{RWA}NBR) is to give an overall view of the traffic safety of public roads and the trend in traffic safety in Finland in 1977, as well as the distribution of traffic accidents by road and waterway districts and accident types. The statistics are based on the accident reports made to the NBR by the police.

The report has been prepared by Mr. Esa Vauhkonen of the Traffic Office of the Operative Division. Mrs. Irmeli Niini-vaara and Mr. Erkki Pirttilä of the Data Processing Office of the Economic Division have been in charge of the ADP functions.







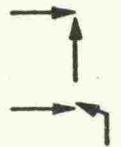




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DEFINITION OF CONCEPTS

General concepts

Traffic accident	A traffic event which has resulted in property damages and/or injuries, involving at least one moving vehicle. This statistical publication only deals with road traffic accidents, denoted "accidents" for the sake of simplicity.
Fatal accident	Accident resulting in at least one person's death within 30 days of the accident.
Accident resulting in injuries	Accident which has not resulted in anybody's death, but in which at least one person has been injured.
Accident resulting in property damages	Accident in which nobody has been killed or injured.
Public roads	Roads maintained by the NBR. They are classified as follows: <div style="margin-left: 40px;"> Highways <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> { I class main roads II class main roads Other highways } </div> </div> Local roads
Accident density (acc./km/year)	Number of accidents per year and road kilometres.
Accident rate (acc./10 ⁸ vehicle km)	Number of accidents divided by the driving performance.

Classification of accident types

Type of accident	Definition	Most common accident situation	
Single accident	Only one motor vehicle involved.		
Overtaking accident	Two or more vehicles involved, one of which was overtaking the other.		
Turning accident	Two or more motor vehicles involved, at least one of which was turning. Overtaking and crossing accidents not included.		
Crossing accident	Two or more motor vehicles involved, one of which was approaching from a crossing road. Turning and overtaking accidents not included.		
Head-on accident	Two or more motor vehicles involved, coming from opposite directions. Turning, overtaking and crossing accidents not included.		
Driving into the rear	Two or more motor vehicles involved. Overtaking and turning accidents not included.		
Moped or bicycle accident	Accident involving motor vehicle and bicycle or moped.		
Pedestrian accident	Accident involving motor vehicle and pedestrian.		
Animal accident	Accident involving motor vehicle and animal.		
Other accidents	Includes level crossing accidents, accidents involving moped, bicycle and pedestrians, etc.		

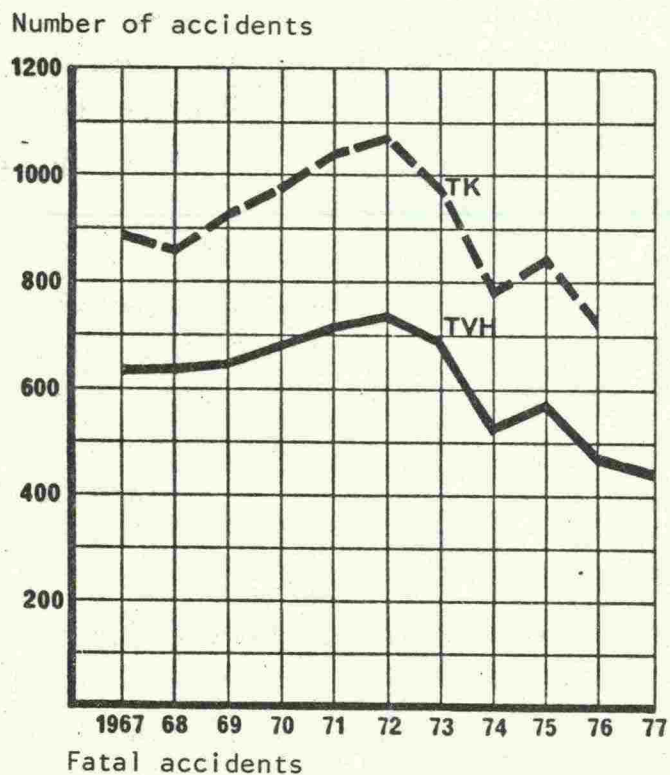
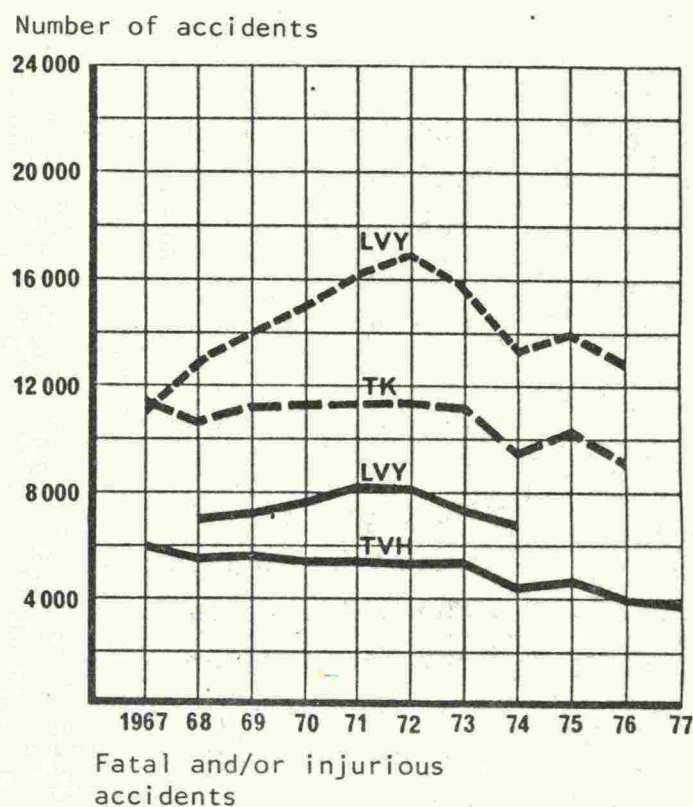
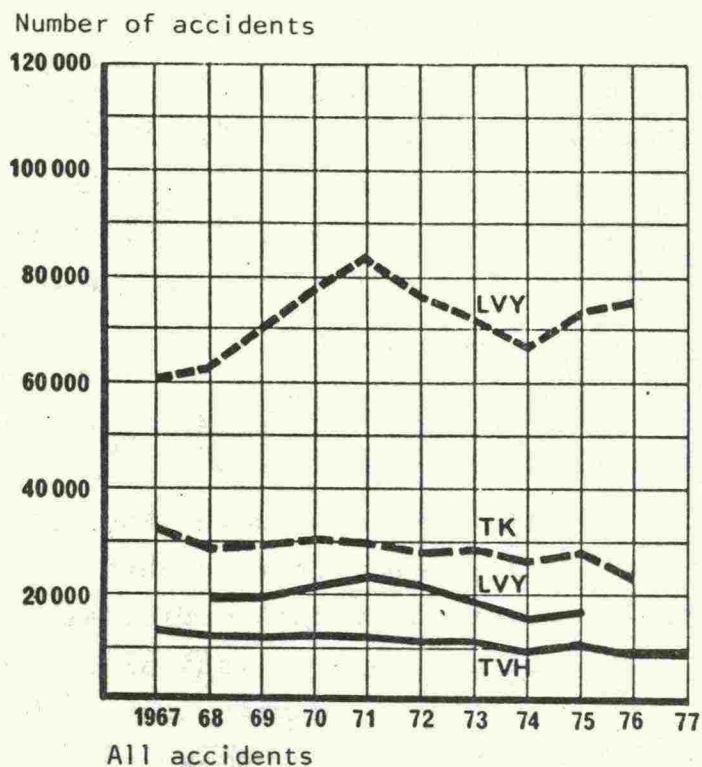
INTRODUCTION

The length of the Finnish road network was 74 149 kilometres at the end of 1977. The length of the street network of the municipal and communal building plans was some 8 000 kilometres altogether, and the length of the private roads nearly 90 000 kilometres.

In Finland the statistics of traffic accidents covering the entire road and street network are compiled by the Central Statistical Office (CSO), the Statistical Centre for Non-Life Insurance and the Central Organization for Traffic Safety. The CSO compiles the official statistics which comprise all accidents reported to it by the police. The Statistical Centre for Non-Life Insurance compiles the traffic damage statistics of the insurance companies on the basis of the damage reports made by the insured; they also include a great number of such accidents as are never reported to the police. The preliminary statistics of the Central Organization for Traffic Safety are based on preliminary data on accidents resulting in death or injuries reported specially by the police.

The NBR compiles statistics of traffic accidents on public roads reported to the road authorities by the police. These statistics aim at maximum accuracy of the data on the scene of the accident and the road conditions, since the data are checked and completed case by case in the NBR districts before the final compilation of the statistics.

The NBR statistics of traffic accidents have been stored in an ADP register, on the basis of which annual standard reports with case data on accidents and collocated statistics of the districts and the whole country are produced. The NBR statistics are produced mainly for the benefit of road and traffic planners and maintenance authorities. They have been used for the follow-up of the traffic safety standards, the allocation of arrangements in the road and traffic environment, for accident analyses of specific roads and studies of the effects of various arrangements.



Public roads
Whole country

LVY = Accidents compensated by traffic insurance

TK = Traffic accidents in the whole country reported to the CSO by the police

TVH = Traffic accidents on public roads reported to the NBR by the police

Figure 1. Number of road traffic accidents in Finland by various statistical sources since 1967

AN ANALYSIS OF THE TREND IN TRAFFIC ACCIDENTS

General

According to police reports, 9 512 traffic accidents occurred on public roads in Finland in 1977, 444 of which were fatal and 3 383 of which resulted in injuries. The number of killed was 508 and that of injured 5 704. The total number of accidents remained almost unchanged from the year before. The fatal accidents dropped by 6 % and the injurious accidents by 7 %. Compared to the year before, the number of killed dropped by 4 % and the number of injured by 6 %. The greatest number of accidents occurred in November and the smallest in March (figures 1 and 5).

A comparison of the CSO and NBR statistics show that some 40 % of all accidents reported by the police in 1974-76 occurred on public roads. Of the accidents which resulted in property damages only, 35 % occurred on public roads. The corresponding figures for accidents resulting in injuries is 45 % and 67 % for fatal accidents (figure 2).

Over a longer period the total number of accidents as well as the fatal accidents and accidents resulting in injuries have dropped according to the NBR statistics. Their coverage is most complete for fatal accidents; their trend is maybe also the most reliable indicator of the development in traffic safety. The number of fatal accidents continued to rise until 1972, when it reached the peak of the statistical period so far. It then began to drop year by year, with the exception of 1975, when it went up by 8 %. But in 1976 and 1977 the accident figures have dropped. The overall drop from 1972 to 1977 has been 37 %, which must be taken as an indication of a considerable improvement in traffic safety (figure 3).

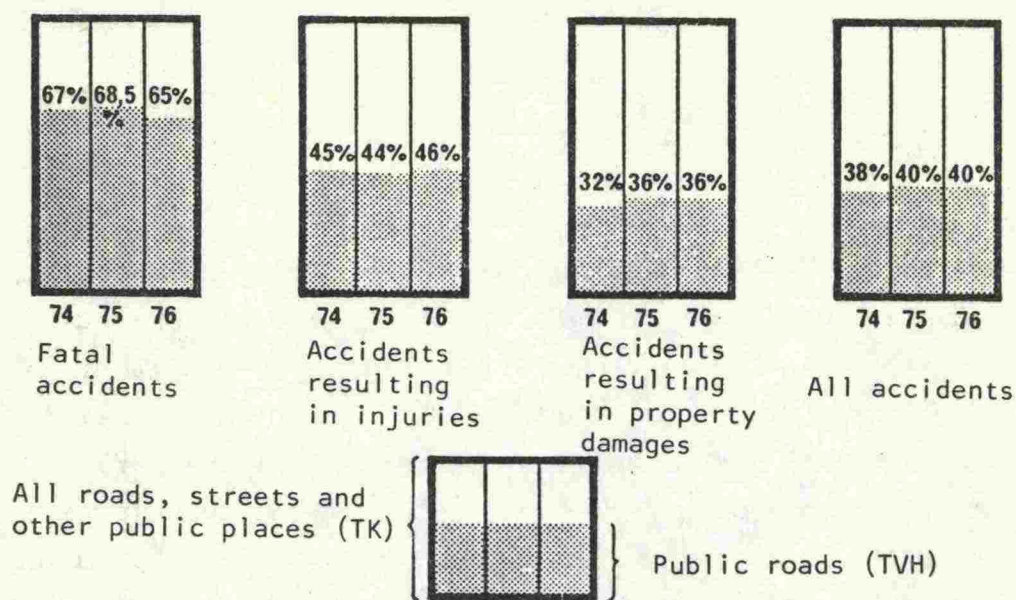


Figure 2. Traffic accidents on public roads in proportion (%) to traffic accidents in the whole country

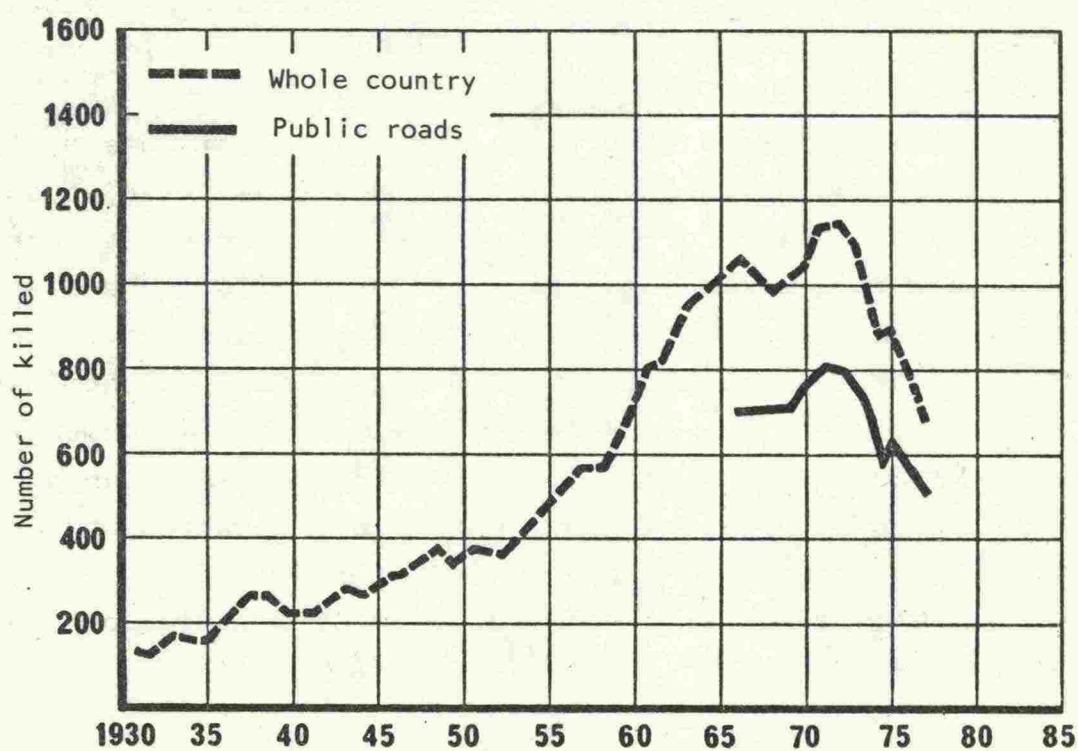


Figure 3. People killed in road traffic accidents in 1931-1977

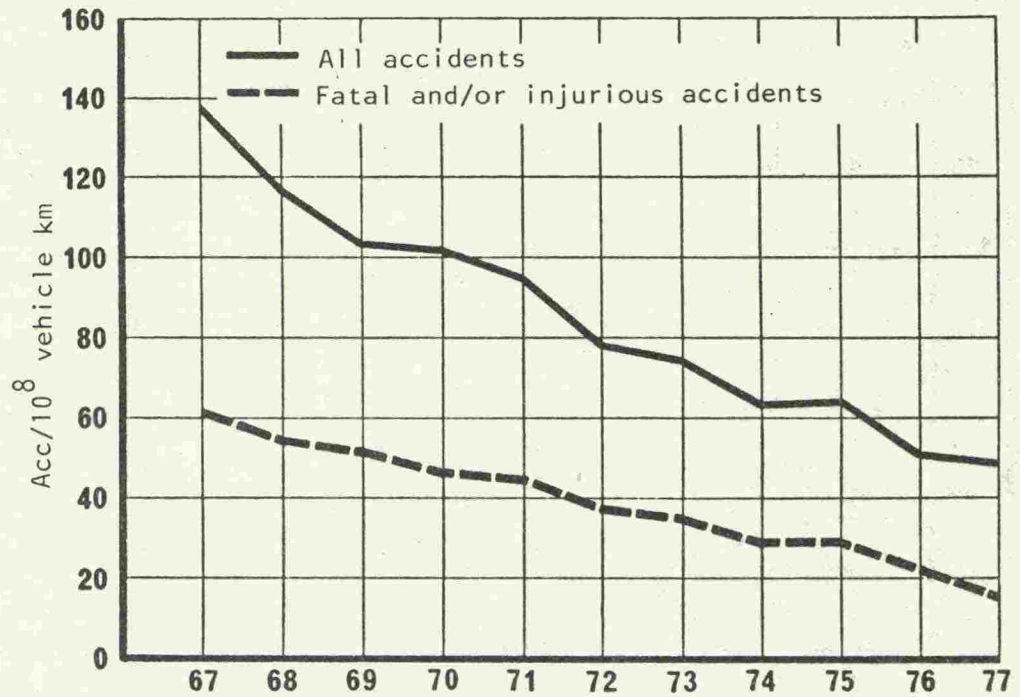


Figure 4. The accident rate (acc/10⁸ vehicle km) on highways in 1967-77

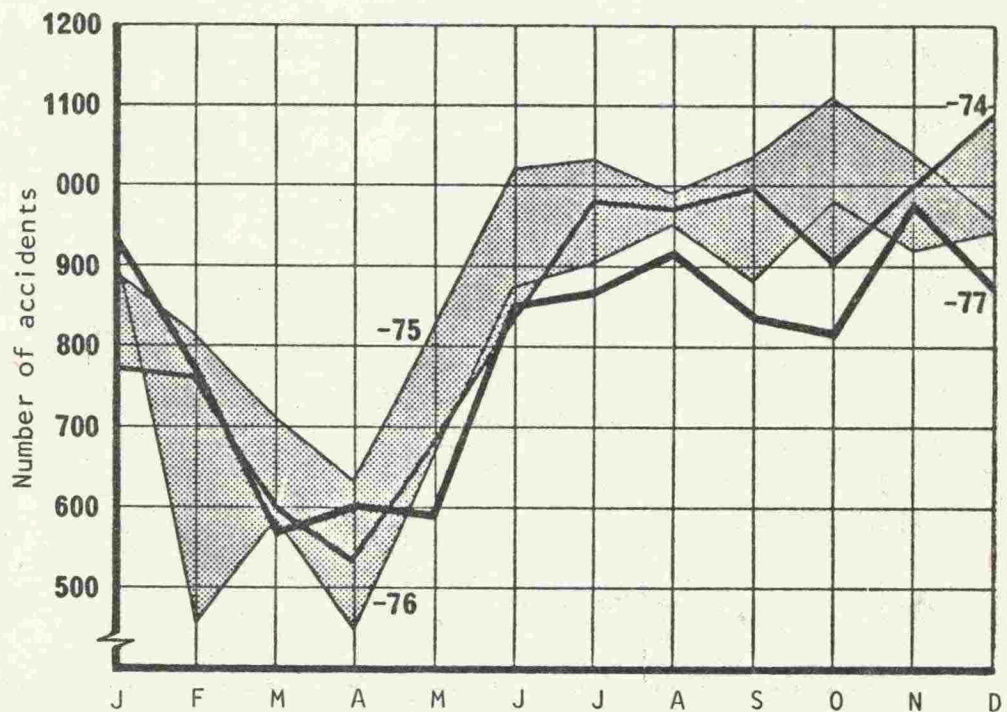


Figure 5. Traffic accidents monthly on public roads

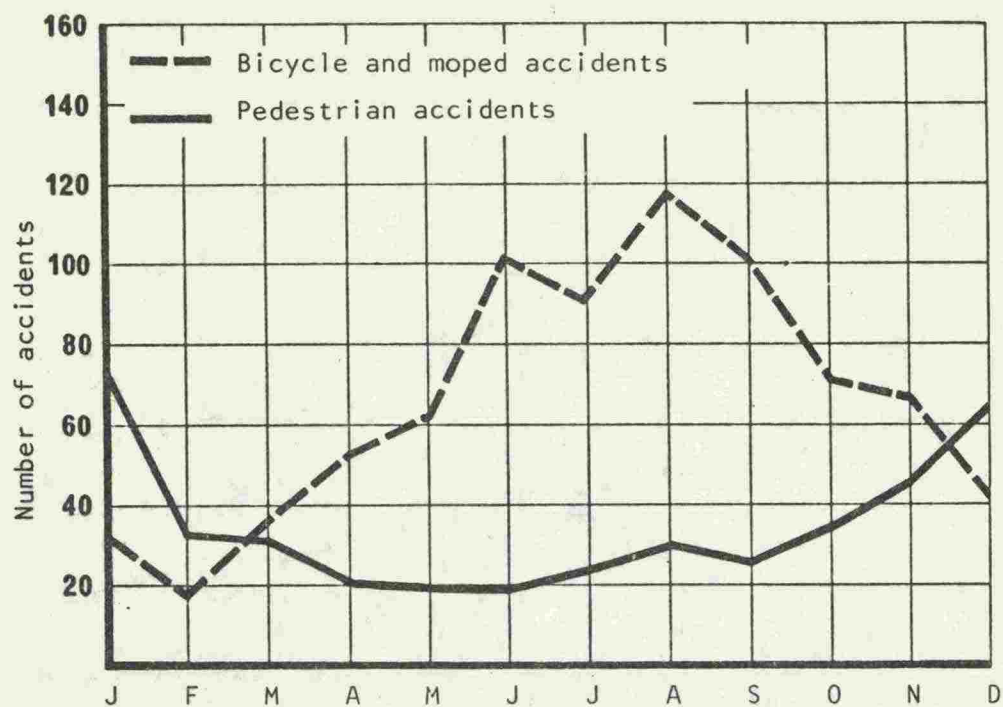


Figure 6. Light traffic accidents monthly on public roads

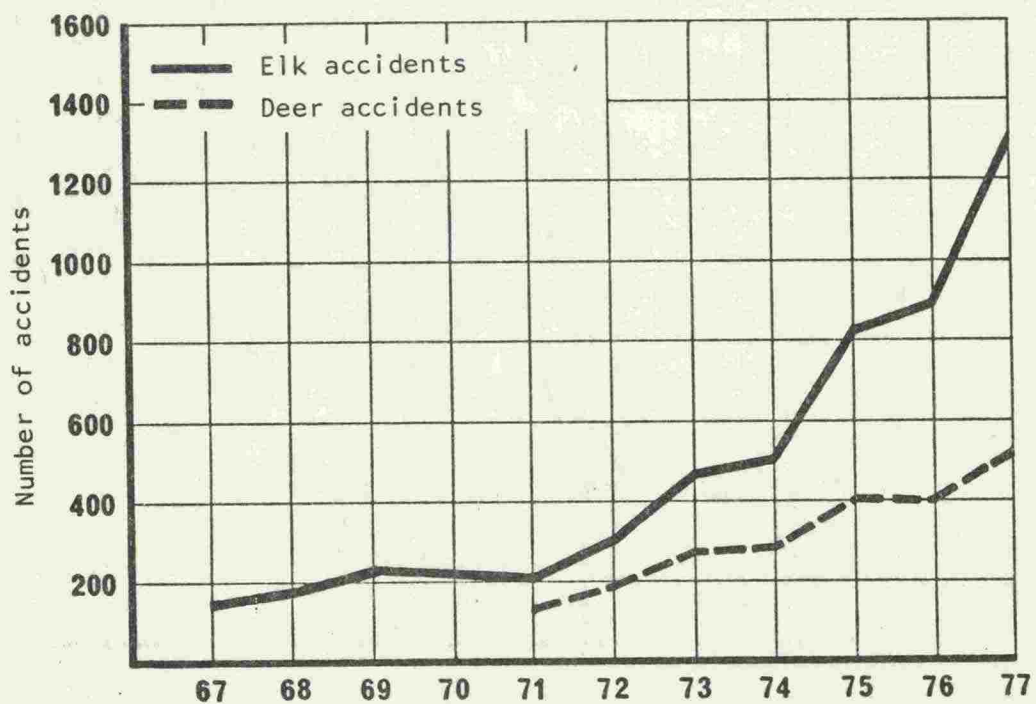


Figure 7. Elk and deer accidents on public roads

Light traffic accidents

In 1977 there were altogether 1 208 accidents on public roads which involved a pedestrian, cyclist or mopedist. The number of such accidents dropped by 4 % from the year before. The light traffic accidents demanded 207 casualties in all, which is 41 % of all casualties in traffic accidents on public roads. The figure dropped by 3 % from the year before.

The pedestrian accidents had the most serious consequences, every fourth of them being fatal. There were 416 pedestrian accidents, demanding 95 casualties and 400 injured. The greatest number of pedestrian accidents occurred in the autumn and winter (figure 6). At the moment of occurrence 58 % of the pedestrians killed were crossing the carriageway, 10 % were walking facing the traffic (on the left side of the road), and 15 % in the direction of the traffic (on the right side).

There were 792 moped and bicycle accidents on public roads, 13 % of which were fatal and about 73 % of which resulted in injuries. About 60 % of these accidents occurred in the summer, in May - September, when the use of mopeds and bicycles was most common (figure 6).

Elk and deer accidents

In 1977 there were 1 285 accidents on public roads which involved an elk, and 490 which a deer. The elk accidents went up by 43 % from the year before, whereas the deer accidents went up by 25 % (figure 7). About 65 % of the elk accidents took place within the Provinces of Uusimaa, Turku and Pori, Häme and Kymi. The deer accidents were almost entirely confined to the Provinces of Uusimaa, Turku and Pori, and Häme.

Two people were killed in elk accidents and 247 injured. The corresponding figures for deer accidents were one death and 12 injured.

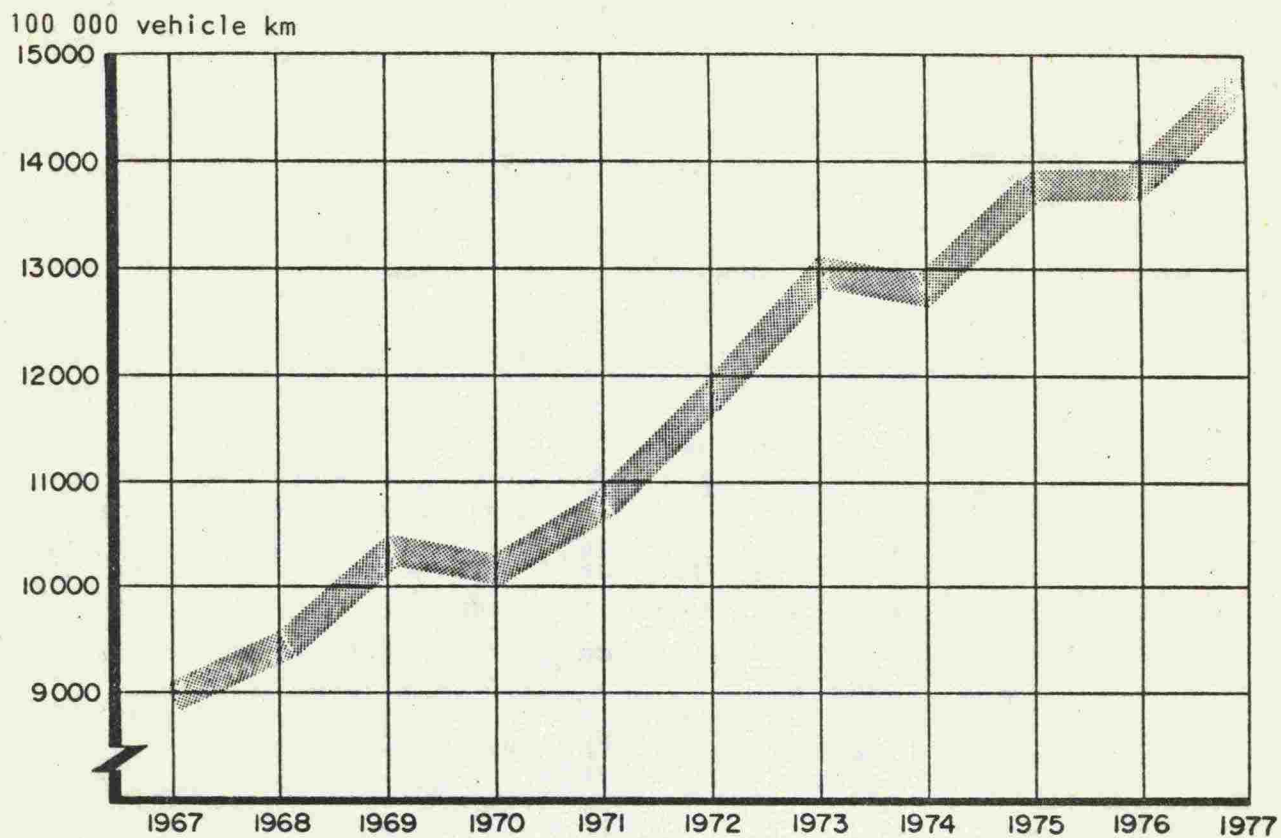


Figure 8. The traffic performance on highways in 1967-77

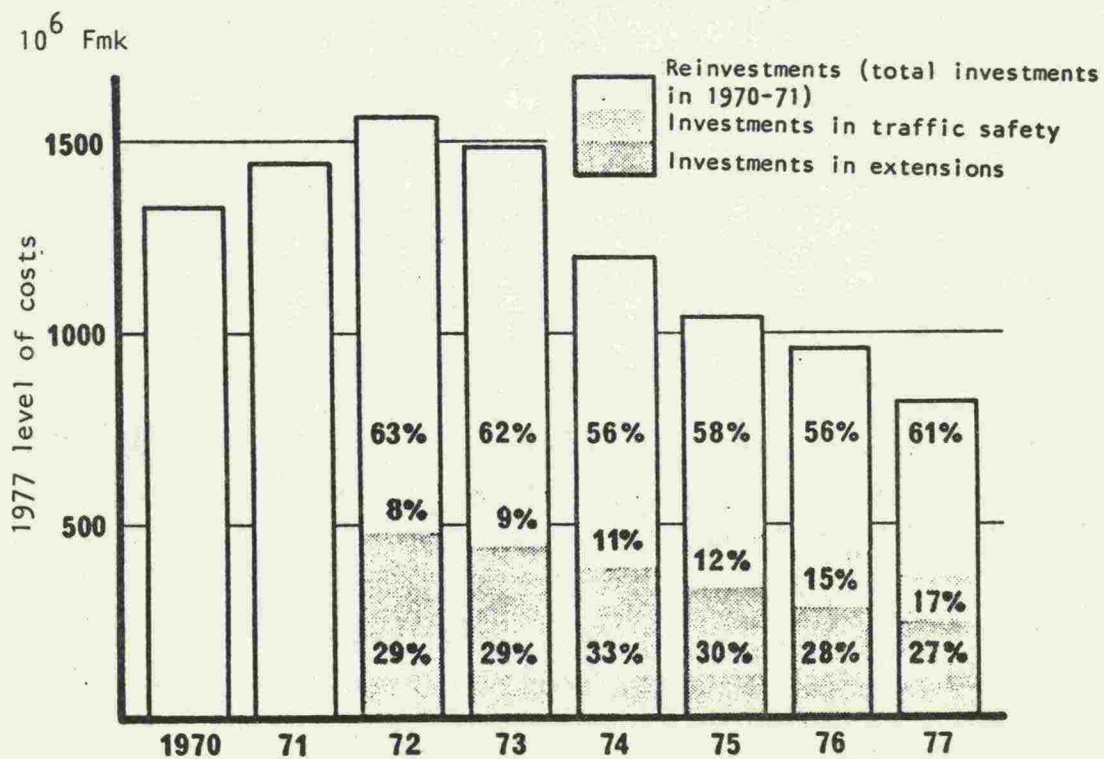


Figure 9. Road investments in 1970-1977

The elk and deer accidents took up about 20 % of all accidents in Southern Finland. The greatest number of deer accidents occurred in the Province of Turku and Pori, where nearly every third traffic accident was an elk or deer accident.

Distribution of traffic accidents by lighting and road conditions

According to the 1977 statistics, 31 % of all traffic accidents on public roads took place in darkness. The proportion still varied between different accident types. Of the pedestrian accidents 51 % occurred in darkness and 14 % of the moped and bicycle accidents. The corresponding figure for animal accidents was 47 %. Of all accidents 37 % occurred when the road surface was snow-covered, icy, glazed or slushy.

TRAFFIC PERFORMANCE

The total traffic performance of motor vehicle traffic has increased by more than 50 % since 1967. After the last strong increase in 1975, the traffic performance remained more or less unchanged in 1976. It grew again by about 7 % in 1977. The growth in the traffic performance on highways is presented in figure 8, on the basis of the 1965, 1970 and 1975 nationwide traffic censuses and the control counts of other years.

ROAD TRAFFIC ARRANGEMENTS

About 130 mill.Fmk or 17 % of the road construction costs of the NBR were taken up by technical traffic safety improvements in 1977. The arrangements for light traffic took up 43 % and the improvements of the traffic safety of public road junctions 27 % of the traffic safety costs. The following safety improvements were made in Finland in 1977:

- 124 kilometres of roads for light traffic were built
- 73 under/overpasses for light traffic were built
- 6 grade-separated junctions for vehicle traffic were built
- 45 junctions were channelized
- 25 junctions were illuminated
- some other improvements were made at 63 junctions
- road lights were installed along 65 kilometres of road
- arrangements for private roads were made along 188 kilometres of road
- 3 railway level crossings were converted into grade-separated level crossings
- safety devices were installed at 42 railway level crossings

The arrangements will bring permanent or long-term improvements to traffic safety. According to estimates they will contribute to avoiding about 1000 accidents in 20 years.

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Table 1. Road traffic accidents and their victims in 1967-1977, according to the statistics of the Traffic Insurance Association (LVY), the Central Statistical Office (TK) and the NBR

Year	Whole country						
	All accidents		Fatal and/or injurious accidents		Fatal accidents	Casualties	Injured
	LVY	TK	LVY	TK	TK	TK	TK
1967	60 150	32 040	11 030	11 572	890	973	15 345
1968	63 000	28 962	13 010	10 746	860	939	14 370
1969	70 150	29 053	14 010	11 368	929	1 006	15 248
1970	77 700	30 466	15 060	11 439	973	1 055	16 028
1971	83 650	30 005	16 380	11 465	1 041	1 143	16 026
1972	76 800	28 205	17 030	11 553	1 072	1 156	15 985
1973	72 850	29 071	15 800	11 395	980	1 086	15 859
1974	66 750	26 574	13 410	9 580	779	865	14 167
1975	72 750	27 608	14 030	10 337	842	910	15 067
1976	74 999	23 989	12 790	8 630	724	804	11 705
1977

Year	Public roads						
	All accidents		Fatal and/or injurious accidents		Fatal accidents	Casualties	Injured
	LVY	TVH	LVY	TVH	TVH	TVH	TVH
1967	..	13 546	..	5 770	633	694	8 595
1968	19 551	12 235	7 029	5 430	634	702	7 918
1969	19 866	12 159	7 204	5 854	647	710	8 473
1970	22 003	12 522	7 721	5 697	688	758	8 791
1971	23 187	12 539	8 227	5 695	717	791	8 729
1972	21 736	11 255	8 145	5 409	740	809	8 175
1973	19 364	11 669	7 370	5 490	693	784	8 328
1974	15 737	10 001	5 450	4 493	523	596	6 671
1975	17 259	10 930	..	4 768	565	623	7 286
1976	..	9 588	..	4 091	470	530	6 039
1977	..	9 512	..	3 827	444	508	5 704

Table 2. Accidents on public roads and their consequences by road and waterway districts in 1977

District	Accidents					Consequences		
	Fatal Nbr	%	Injurious Nbr	%	All	Casualties	Injured	Damaged vehicles
Uusimaa	66	3.8	598	34.2	1751	87	1025	2588
Turku	72	4.4	552	34.1	1621	77	919	2215
Häme	57	5.1	393	35.5	1107	63	694	1589
Kymi	35	4.4	245	31.0	790	39	361	1095
Mikkeli	23	4.4	181	34.7	522	23	305	711
Pohjois-Karjala	18	4.3	142	34.3	414	22	233	586
Kuopio	22	5.3	162	39.3	412	24	306	615
Keski-Suomi	29	5.7	210	40.9	513	36	384	747
Vaasa	52	4.6	399	35.2	1132	60	649	1682
Keski-Pohjanmaa	22	8.2	117	43.8	267	24	204	406
Oulu	22	4.8	165	36.0	458	25	278	716
Kainuu	9	4.6	89	45.4	196	9	135	275
Lappi	17	5.2	130	39.5	329	19	211	482
Whole country	444	4.7	3383	35.6	9512	508	5704	13707

Table 3. Accidents on public roads and their consequences by road types in 1977

Type of road	Length ²⁾ km	Accidents						Consequences		
		Fatal		Injurious		All		Casualties	Injured	Damaged vehicles
		Nbr	%	Nbr	%	Nbr	%			
Motorways and motor traffic roads	230.0	10	4.2	86	36.4	236	2.5	13	139	324
I class main roads ¹⁾	6680.0	165	5.1	1065	33.1	3222	33.9	200	1952	4794
II class main roads ¹⁾	3705.0	55	5.4	350	34.0	1028	10.8	61	632	1538
Other highways ¹⁾	29460.0	158	4.8	1213	37.0	3278	34.5	173	1982	4593
Local roads ¹⁾	33688.0	56	3.2	669	38.3	1748	18.4	61	999	2458
All	73763.0	444	4.7	3383	35.6	9512	100.0	508	5704	13707

1) Excl. motorways and motor traffic roads

2) 1.1.1977

Table 4. Accidents on public roads by month in 1977

Month	Fatal		Fatal and/or injurious		All	
	Nbr	%	Nbr	%	Nbr	%
January	37	8.3	312	8.2	935	9.8
February	17	3.8	225	5.9	671	7.1
March	31	7.0	231	6.0	573	6.0
April	31	7.0	268	7.0	604	6.3
May	23	5.2	240	6.3	588	6.2
June	42	9.5	395	10.3	852	9.0
July	62	14.0	395	10.3	872	9.2
August	51	11.5	425	11.1	917	9.6
September	46	10.4	383	10.0	837	8.8
October	28	6.3	309	8.1	816	8.6
November	38	8.6	337	8.8	976	10.3
December	38	8.6	307	8.0	871	9.2
In all	444	100.0	3827	100.0	9512	100.0

Table 5. Parties to accidents on public roads in 1977

Type of party	To fatal accidents		To accidents resulting in injuries		To all accidents	
	Nbr	%	Nbr	%	Nbr	%
Passenger car	442	52.6	3818	62.2	10871	62.8
Van	24	2.9	225	3.7	635	3.7
Lorry without trailer	45	5.4	249	4.1	861	5.0
Lorry + trailer	39	4.6	132	2.1	502	2.9
Lorry + semi-trailer	12	1.4	42	0.7	142	0.8
Bus or coach	18	2.1	120	2.0	383	2.2
Motorcycle	15	1.8	192	3.1	246	1.4
Moped	37	4.4	253	4.1	349	2.0
Bicycle	78	9.3	423	6.9	571	3.3
Pedestrian	98	11.7	366	6.0	480	2.8
Animal	3	0.4	173	2.8	1880	10.9
Train	10	1.2	6	0.1	32	0.2
Other	19	2.3	141	2.3	367	2.1
In all	840	100.0	6140	100.0	17319	100.0

Table 6. Accident density (acc/km) and rate (acc/10⁸ vehicle km) on public roads by road types in 1977

Type of road	All accidents		Fatal accidents		Accidents resulting in injuries	
	Density	Rate	Density	Rate	Density	Rate
Motorways and motor traffic roads	1.0	23.5	0.04	1.0	0.36	8.6
I class main roads ¹⁾	0.48	47.2	0.02	2.4	0.16	15.6
II class main roads ¹⁾	0.27	46.5	0.01	2.5	0.09	15.8
Other highways ¹⁾	0.11	56.8	0.005	2.7	0.04	21.0
Local roads ¹⁾	0.05	63.1	0.002	2.0	0.02	24.2
All public roads	0.13	54.1	0.006	2.5	0.045	19.2

¹⁾ Excl. motorways and motor traffic roads

Table 7. Accident rate (acc/10⁸ vehicle km) on highways by road and waterway districts in 1977

District	Fatal accidents	Accidents resulting in injuries	All accidents
Uusimaa	2.5	22.7	66.4
Turku	3.2	25.3	74.2
Häme	3.1	21.4	60.3
Kymi	3.4	24.0	77.4
Mikkeli	2.8	22.1	63.8
Pohjois-Karjala	3.0	23.8	69.5
Kuopio	2.8	20.3	51.6
Keski-Suomi	3.4	24.3	59.4
Vaasa	4.0	30.3	86.1
Keski-Pohjanmaa	4.6	24.6	56.2
Oulu	2.6	19.2	53.3
Kainuu	2.3	22.8	50.1
Lappi	1.7	12.7	32.2

Table 8. Number of different types of accidents on public roads by month in 1977

Type of accident	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	All
Single accident	169	84	107	179	162	218	231	225	209	243	237	166	2230
Turning accident	118	101	85	72	55	95	110	111	87	71	93	125	1123
Overtaking accident	52	37	40	37	19	20	18	30	25	24	44	38	384
Crossing accident	100	143	98	59	45	69	100	91	65	75	83	87	1015
Head-on accident	113	103	66	63	23	33	37	47	36	40	75	69	705
Driving into the rear	96	64	62	48	46	57	61	72	61	54	66	59	746
Moped or bicycle acc.	31	18	36	53	62	101	91	118	101	71	68	42	792
Pedestrian accident	73	32	31	20	19	19	23	30	26	33	45	65	416
Animal accident	155	74	28	54	142	220	177	162	204	188	246	202	1852
Other accidents	28	15	20	19	15	20	24	31	23	17	19	18	249
In all	935	671	573	604	588	852	872	917	837	816	976	871	9512

Table 9. Monthly % distribution of different types of accidents on public roads in 1977

Type of accident	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	All
Single accident	18.1	12.5	18.7	29.6	27.6	25.6	26.5	24.5	25.0	29.8	24.3	19.1	100.0
Turning accident	12.6	15.1	14.8	11.9	9.4	11.2	12.6	12.1	10.4	8.7	9.5	14.4	100.0
Overtaking accident	5.6	5.5	7.0	6.1	3.2	2.3	2.1	3.3	3.0	2.9	4.5	4.4	100.0
Crossing accident	10.7	21.3	17.1	9.8	7.7	8.1	11.5	9.9	7.8	9.2	8.5	10.0	100.0
Head-on accident	12.1	15.4	11.5	10.4	3.9	3.9	4.2	5.1	4.3	4.9	7.7	7.9	100.0
Driving into the rear	10.3	9.5	10.8	7.9	7.8	6.7	7.0	7.9	7.3	6.6	6.8	6.8	100.0
Moped or bicycle acc.	3.3	2.7	6.3	8.8	10.5	11.9	10.4	12.9	12.1	8.7	7.0	4.8	100.0
Pedestrian accident	7.8	4.8	5.4	3.3	3.2	2.2	2.6	3.3	3.1	4.0	4.6	7.5	100.0
Animal accident	16.6	11.0	4.9	8.9	24.1	25.8	20.3	17.7	24.4	23.0	25.2	23.2	100.0
Other accidents	3.0	2.2	3.5	3.1	2.6	2.3	2.8	3.4	2.7	2.1	1.9	2.1	100.0
All	9.8	7.1	6.0	6.3	6.2	9.0	9.2	9.6	8.8	8.6	10.3	9.2	100.0

Table 10. Types of accidents on public roads by seriousness in 1977

Type of accident	Fatal		Resulting in injuries		Resulting in property damages		In all	
	Nbr	%	Nbr	%	Nbr	%	Nbr	%
Single accident	83	3.7	865	38.8	1282	57.5	2230	100.0
Turning accident	21	1.9	338	30.1	764	68.0	1123	100.0
Overtaking accident	19	4.9	119	31.0	246	64.1	384	100.0
Crossing accident	25	2.5	374	36.8	616	60.7	1015	100.0
Head-on accident	71	10.1	281	39.9	353	50.1	705	100.0
Driving into the rear	14	1.9	220	29.5	512	68.6	746	100.0
Moped or bicycle acc.	103	13.0	580	73.2	109	13.8	792	100.0
Pedestrian accident	86	20.7	318	76.4	12	2.9	416	100.0
Animal accident	3	0.2	170	9.2	1679	90.7	1852	100.0
Other accidents	19	7.6	118	47.4	112	45.0	249	100.0
All	444	4.7	3383	35.6	5685	59.8	9512	100.0

Table 11. Types of accidents on public roads by road types in 1977

Type of accident	I and II class main roads		Other highways		Local roads		All	
	Nbr	%	Nbr	%	Nbr	%	Nbr	%
Single accident	855	19.3	857	25.7	518	29.8	2230	23.4
Turning accident	533	12.0	380	11.4	210	12.1	1123	11.8
Overtaking accident	215	4.8	113	3.4	56	3.2	384	4.0
Crossing accident	442	10.0	374	11.2	199	11.4	1015	10.7
Head-on accident	271	6.1	274	8.2	160	9.2	705	7.4
Driving into the rear	464	10.5	205	6.1	77	4.4	746	7.8
Moped or bicycle acc.	268	6.0	349	10.5	175	10.1	792	8.3
Pedestrian accident	159	3.6	165	4.9	92	5.3	416	4.4
Animal accident	1145	25.8	524	15.7	183	10.5	1852	19.5
Other accidents	86	1.9	95	2.8	68	3.9	249	2.6
In all	4438	100.0	3336	100.0	1738	100.0	9512	100.0

Table 12. Types of accidents on public roads by place of accident in 1977

Type of accident	Public road junction		Private road junction		Railway level crossing		Bridge		Other place		Tot
	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr
Single accident	139	10.5	83	6.0	8	17.8	44	42.3	1956	29.4	2230
Turning accident	256	19.3	484	35.0	1	2.2	8	7.7	374	5.6	1123
Overtaking accident	37	2.8	38	2.7	-	0.0	6	5.8	303	4.6	384
Crossing accident	531	40.1	322	23.3	-	0.0	-	0.0	162	2.4	1015
Head-on accident	18	1.4	28	2.0	1	2.2	28	26.9	630	9.5	705
Driving into the rear	96	7.2	88	6.4	-	0.0	7	6.7	555	8.3	746
Moped or bicycle acc.	181	13.7	252	18.2	-	0.0	5	4.8	354	5.3	792
Pedestrian accident	31	2.3	51	3.7	1	2.2	2	1.9	331	5.0	416
Animal accident	19	1.4	13	0.9	-	0.0	1	1.0	1819	27.3	1852
Other accidents	17	1.3	25	1.8	34	75.6	3	2.9	170	2.6	249
All	1325	13.9	1384	14.6	45	0.5	104	1.1	6654	70.0	9512

Table 13. Types of accidents on public roads resulting in death or injuries by light conditions in place of accident in 1977

Type of accident	Daylight		Dusk		Darkness, road illuminated		Darkness, road not illuminated		In all	
	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr	%
Single accident	475	50.1	152	16.0	82	8.6	239	25.2	948	100.0
Turning accident	274	76.3	24	6.7	27	7.5	34	9.5	359	100.0
Overtaking accident	88	63.8	20	14.5	6	4.3	24	17.4	138	100.0
Crossing accident	293	73.4	37	9.3	44	11.0	25	6.3	399	100.0
Head-on accident	221	62.8	35	9.9	20	5.7	76	21.6	352	100.0
Driving into the rear	162	69.2	21	9.0	15	6.4	36	15.4	234	100.0
Moped or bicycle acc.	538	78.8	48	7.0	39	5.7	58	8.5	683	100.0
Pedestrian accident	173	42.8	29	7.2	79	19.6	123	30.4	404	100.0
Animal accident	56	32.4	38	22.0	8	4.6	71	41.0	173	100.0
Other accidents	93	67.9	20	14.6	11	8.0	13	9.5	137	100.0
All	2373	62.0	424	11.1	331	8.6	699	18.3	3827	100.0

Table 14. Accidents on public roads by place of accident and road type in 1977

Place of accident	I and II class main roads		Other highways		Local roads		All	
	Nbr	%	Nbr	%	Nbr	%	Nbr	%
Public road junction	795	17.9	435	13.0	95	5.5	1325	13.9
Private road junction	501	11.3	560	16.8	323	18.6	1384	14.6
Railway level crossing	5	0.1	17	0.5	23	1.3	45	0.5
Bridge	40	0.9	50	1.5	14	0.8	104	1.1
Other place	3097	69.8	2274	68.2	1283	73.8	6654	70.0
In all	4438	100.0	3336	100.0	1738	100.0	9512	100.0

Table 15. Elk and deer accidents on public roads by road and waterway district in 1977

District	Elk accidents			Deer accidents			Deer accidents in all
	Fatal	Injurious	In all	Fatal	Injurious	In all	
Uusimaa	1	35	292	-	-	51	343
Turku	-	32	236	-	3	269	505
Häme	-	18	107	1	2	162	269
Kymi	1	14	210	-	-	-	210
Mikkeli	-	15	134	-	-	1	135
Pohjois-Karjala	-	13	65	-	-	-	65
Kuopio	-	5	30	-	-	-	30
Keski-Suomi	-	5	46	-	-	1	47
Vaasa	-	12	107	-	-	2	109
Keski-Pohjanmaa	-	3	15	-	-	-	15
Oulu	-	6	31	-	-	-	31
Kainuu	-	-	3	-	-	-	3
Lappi	-	1	9	-	-	-	9
Whole country	2	159	1285	1	5	486	1771

Table 16. Distribution of accidents on public roads by behaviour of killed and injured pedestrians in the accident situation in 1977

Behaviour of pedestrian	Casualties		Injured	
	Number	Proportion	Number	Proportion
Crossing carriageway	44	48.9	149	47.2
Emerged in front of or from behind vehicle or otherwise suddenly on carriageway	14	15.6	50	15.8
Walked facing traffic	10	11.1	31	9.8
Walked in direction of traffic	15	16.7	50	15.8
Worked on carriageway	-	0.0	4	1.3
On carriageway for other reasons	5	5.6	15	4.7
Other	2	2.2	17	5.4
In all	90	100.0	316	100.0

Table 17. Accidents on public roads by different road conditions in 1977

Road condition, surface	Accidents			Consequences		
	Fatal	Injurious	Acc. in all	Casualties	Injured	Damaged vehicles
Bare, dry	245	1727	4502	265	2835	6260
Bare, wet	72	501	1423	80	870	2004
Snow-covered	23	298	1024	30	472	1528
Icy	86	717	2173	102	1236	3346
Ice-glazed	4	21	83	6	40	125
Slushy	14	111	284	25	236	416
Clayey & slippery	-	6	18	-	13	21
Other	-	2	5	-	2	7
Acc. in all	444	3383	9512	508	5704	13707

Table 18. Accidents on public roads by different light conditions in 1977

Lighting conditions	Accidents			Consequences		
	Fatal	Injurious	Acc. total	Casualties	Injured	Damaged vehicles
Daylight	266	2107	5319	304	3457	8243
Dusk	46	378	1270	54	661	1672
Darkness, road illuminated	23	308	818	27	477	1173
Darkness, road not illuminated	109	590	2105	123	1109	2619
Accidents in all	444	3383	9512	508	5704	13707